

1. (currently amended and previously amended) Method of ~~using~~ preparing a medicament for destroying proliferating cells comprising:
combining an oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof which hybridizes with the mRNA which codes for the protein Ki-67, ~~or a physiologically acceptable salt thereof, for the preparation of~~ with a carrier to prepare a medicament for destroying proliferating cells.
2. (currently amended and previously amended) Method according to claim 1, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is ~~complimentary~~ complementary to SEQ ID NO 1.
3. (currently amended and previously amended) Method according to claim 2, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is ~~complimentary~~ complementary to the section from position 197 to 9962 of SEQ ID NO 1.
4. (currently amended and previously amended) Method according to anyone of claims 1 to 3, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof contains 12 to 66 nucleotides.
5. (currently amended and previously amended) Method according to anyone of claims 1-3, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof contains 17 to 46 nucleotides.
6. (currently amended and previously amended) Method according to any one of claims 1-3, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has the sequence (SEQ ID NO:3) (5'-ACC AGG CGT CTC GTG GGC CAC AT).

7. (currently amended and previously amended) Method according to anyone of claims 1-3, wherein one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene (methylimino) and guanidine group(s).

8. (currently amended and previously amended) Method according to anyone of claims 1-3, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

9. (currently amended) Medicament, ~~characterized by a content of comprising:~~
an oligoribo- and/or oligodeoxyribonucleotide or a physiologically acceptable salt thereof which is capable of hybridizing with the mRNA which codes for the cell cycle-associated protein Ki-67; and ~~, or of a physiologically acceptable salt thereof,~~
~~in addition to~~

conventional carrier substances, auxiliaries and/or additives, wherein the amount of oligonucleotide is adjusted such that an administration of 0.001 to 100 mg/kg of body weight is achieved.

10 (currently amended and previously amended) Method according to anyone of claims 1-3, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases and rejection reactions following transplantations.

11. (deleted)

12. (deleted)

13. (deleted)

14. (currently amended) Oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof containing 22 to 46 nucleotides and being, characterized in that it is capable of hybridizing with the mRNA which codes for the protein Ki-67, ~~and that it contains 22 to 46 nucleotides, or a physiologically acceptable salt thereof.~~

15. (currently amended and previously amended) Oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof containing according to claim 14, wherein it contains the sequence (SEQ ID NO:3) (5'-ACC AGG CGT CTC GTG GGC CAC AT) and being capable of hybridizing with the mRNA which codes for the protein Ki-67.

16. (new) Method according to claim 4, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof contains 17 to 46 nucleotides.

17. (new) Method according to claim 4, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has the sequence (SEQ ID NO:3) (5'-ACC AGG CGT CTC GTG GGC CAC AT).

18. (new) Method according to claim 5, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has the sequence (SEQ ID NO:3) (5'-ACC AGG CGT CTC GTG GGC CAC AT).

19. (new) Method according to claim 4, wherein one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene(methylimino) and guanidine group(s).

20. (new) Method according to claim 5, wherein one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene(methylimino) and guanidine group(s).

21. (new) Method according to claim 6, wherein one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene(methylimino) and guanidine group(s).

22. (new) Method according to claim 4, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has terminal 3'-3' and/or 5'-5' internucleotide linkage.

23. (new) Method according to claim 5, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has terminal 3'-3' and/or 5'-5' internucleotide linkage.

24. (new) Method according to claim 6, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has terminal 3'-3' and/or 5'-5' internucleotide linkage.


25. (new) Method according to claim 7, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has terminal 3'-3' and/or 5'-5' internucleotide linkage.

26. (new) Method according to claim 4, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases or rejection reactions following transplantations.

27. (new) Method according to claim 5, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases or rejection reactions following transplantations.

28. (new) Method according to claim 6, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases or rejection reactions following transplantations.

29. (new) Method according to claim 7, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases or rejection reactions following transplantations.

 30. (new) Method according to claim 8, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases or rejection reactions following transplantations.

31. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 14, characterized in that the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complementary to SEQ ID NO 1.


32. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 31, characterized in that the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complementary to the section from position 197 to 9962 of SEQ ID NO 1.

33. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 14, characterized in that one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by phosphothioate, methylphosphonate, phosphoamidate, methylene (methylimino)

and/or guanidine group(s).

34. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 15, characterized in that one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by phosphothioate, methylphosphonate, phosphoamidate, methylene (methylimino) and/or guanidine group(s).

35. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 31, characterized in that one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by phosphothioate, methylphosphonate, phosphoamidate, methylene (methylimino) and/or guanidine group(s).

 36. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 32, characterized in that one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by phosphothioate, methylphosphonate, phosphoamidate, methylene (methylimino) and/or guanidine group(s).

37. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 14, characterized in that the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

38. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 15, characterized in that the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

39. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 31, characterized in that the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

40. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 32, characterized in that the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

41. (new) Oligoribo- or oligodeoxyribonucleotide according to claim 35, characterized in that the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

42 (new) Oligoribo- or oligodeoxyribonucleotide according to claim 36, characterized in that the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

43. (new) Method according to claim 1, wherein the carrier is selected to provide a medicament for application systemically, locally, subcutaneously, intrathecally, topically or by enema.

44. (new) Method according to claim 1, wherein the carrier is selected to provide a medicament in which the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is present in solution, emulsion or solid form.

45. (new) Method according to claim 1, further comprising the step of adding an auxiliary or additive.


46. (new) Method according to claim 1, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof hybridizes with Ki-67 at 37°C.

47. (new) Method according to claim 1, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complimentary to the section from position 197 to 2673 of SEQ ID NO 1.

48. (new) Method according to claim 1, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complimentary to the section from position 2673 to 9962 of SEQ ID NO 1.

49. (new) Method according to claim 7, wherein all of the phosphate groups are replaced with at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene (methylimino) and guanidine group(s).

50. (new) Method according to claim 7, wherein one or more of the phosphate groups are replaced with phosphothioate.

 51. (new) Method according to claim 1, further comprising the step of modifying at least one of bases, sugar residues or phosphate residues of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof to improve ability to penetrate through membranes and/or to increase a biological half-life.


52. (new) Method according to claim 24, further comprising replacing one or more ribose residues of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof with hexose or an amino acids.

53. (new) Method according to claim 24, further comprising modifying one or more bases of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof with 5-propinyl-uracyl, 5-propinylcytosine and/or tricyclic cytosine analogue phenoxazine.

54. (new) Method according to claim 1, wherein medicament is prepared such that administration of the medicament provides 0.001 to 100 mg of the oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof per kilogram of body weight.

55. (new) Method according to claim 1, wherein medicament is prepared such that administration of the medicament provides 0.001 to 10 mg of the oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof per kilogram of body weight.

56. (new) Method according to claim 1, wherein medicament is prepared such that administration of the medicament provides 0.001 to 3 mg of the oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof per kilogram of body weight.

 57. (new) Medicament comprising:
at least one oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof which hybridizes with the mRNA which codes for the protein Ki-67; and
a carrier.

58. (new) Medicament according to claim 57, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complementary to SEQ ID NO 1.

59. (new) Medicament according to claim 58, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complementary to the section from position 197 to 9962 of SEQ ID NO 1.

60. (new) Medicament according to claim 57, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof contains 12 to 66 nucleotides.

61. (new) Medicament according to claim 57, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt

thereof contains 17 to 46 nucleotides.

62. (new) Medicament according to claim 57, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof contains the sequence (SEQ ID NO:3) (5'-ACC AGG CGT CTC GTG GGC CAC AT).

63. (new) Medicament according to claim 57, wherein one or more phosphate groups of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof are replaced by at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene(methylimino) and guanidine group(s).

64. (new) Medicament according to claim 57, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has a terminal 3'-3' and/or 5'-5' internucleotide linkage.

65. (new) Medicament according to claim 57, wherein the medicament is formulated for treatment of tumours, autoimmune diseases, cicatrization, inflammations, allergies, rheumatic diseases or rejection reactions following transplantations.

66. (new) Medicament according to claim 57, wherein the medicament is formulated for systemic application.

67. (new) Medicament according to claim 57, wherein the medicament is formulated for local application.

68. (new) Medicament according to claim 57, wherein the medicament is formulated for subcutaneous application.

69. (new) Medicament according to claim 57, wherein the medicament is

formulated for intrathecal application.

70. (new) Medicament according to claim 57, wherein the medicament is formulated for topical application.

71. (new) Medicament according to claim 57, wherein the medicament is formulated for application by enema.

72. (new) Medicament according to claim 57, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is present in solution, emulsion or solid form.

73. (new) Medicament according to claim 57, further comprising an auxiliary or additive.

74. (new) Medicament according to claim 57, wherein the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof hybridizes with Ki-67 at 37°C.

75. (new) Medicament according to claim 57, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complementary to the section from position 197 to 220 of SEQ ID NO 1.


76. (new) Medicament according to claim 57, wherein the nucleotide sequence of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof is complementary to the section from position 2673 to 9962 of SEQ ID NO 1.

77. (new) Medicament according to claim 63, wherein all of the phosphate groups are replaced with at least one selected from the group consisting of phosphothioate, methylphosphonate, phosphoramidate, methylene (methylimino) and guanidine group(s).

78. (new) Medicament according to claim 63, wherein one or more of the phosphate groups are replaced with phosphothioate.

79. (new) Medicament according to claim 57, wherein at least one of bases, sugar residues or phosphate residues of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof has been modified to improve ability to penetrate through membranes and/or to increase a biological half-life.

80. (new) Medicament according to claim 57, wherein one or more ribose residues of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof have been replaced with hexose or an amino acids.

 81. (new) Medicament according to claim 57, wherein one or more bases of the oligoribo- or oligodeoxyribonucleotide or physiologically acceptable salt thereof have been modified with 5-propinyl-uracyl, 5-propinylcytosine and/or tricyclic cytosine analogue phenoxazine.

82. (new) Medicament according to claim 57, wherein the medicament provides 0.001 to 100 mg of the oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof per kilogram of body weight when administered.

83. (new) Medicament according to claim 57, wherein the medicament provides 0.001 to 10 mg of the oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof per kilogram of body weight when administered.

84. (new) Medicament according to claim 57, wherein the medicament provides 0.001 to 3 mg of the oligoribo- or oligodeoxyribonucleotide or a physiologically acceptable salt thereof per kilogram of body weight when administered.
